



www.luckstonerock.com

THE LUCK STONE ROCK EARTH SCIENCES INTERACTIVE TEACHING KIT - 2007

The Luck Stone Rock is a “hands-on, minds-on” educational resource developed primarily for Virginia’s fifth-grade classrooms. It directly supports the *Science Standards of Learning* both in specific content and the science skills.

The kit provides 12 rock samples representing various Virginia localities, demonstrating features and characteristics that help students learn about many important geological concepts. The rock kit may also serve as an educational tool for the fourth-grade classroom, providing several samples of Virginia mineral resources that have economic importance.

The kit is built around “activity stations,” a standard teaching model used at virtually all levels of science education, kindergarten through college. *The Luck Stone Rock* uses a “lab practical” format with specific rock samples keyed to numbered activity cards with specific directions or questions.

This instructional design has been used effectively in kits, activities, and classroom assessments across several disciplines, and certainly is familiar to many teachers. The lesson design allows direct student involvement, movement, and teamwork; requires minimal logistical preparation on the part of the teacher; and does not consume the provided samples.

Each of the three Activities (LP1, LP2, LP3) of *The Luck Stone Rock* includes a detailed introductory area that provides overall directions and Lesson Plan (LP) information. The components of this introduction have been developed to assist the teacher in using the specific activities effectively. The components are:

- Question
- Rationale
- Objectives
- Key Concepts
- Procedure: Description and Directions
- Class Debriefing /Follow-up
- Performance Assessment
- Vocabulary

The three core activities of this kit follow a standard progression, mirroring sequential development of basic to more complex science skills. In studying Earth materials, the skill “observation” is extremely critical for success. Detailed analysis

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and rock identification are completely dependent on students using observation skills deliberately and systematically. Clear description of the rock samples reinforces crucial language skills by building students' vocabulary. Fine discrimination among similar-appearing samples nurtures an understanding of the value of careful, methodical work and the importance of looking deeper. Identifying samples, using a key and coupled with the analysis of collected information, helps develop logical reasoning skills.

It is intended that *The Luck Stone Rock* will be integrated into the local curriculum and the classroom teacher's regular instructional delivery. The individual *Rock* activities should fit easily into existing fifth-grade Earth Science units and add an additional dimension to what already works well.

No activity should be conducted without the proper preparation. This should be done in several ways including using selected literature, discussions before hand, questioning, displaying students' own rock samples, and using audiovisuals materials. Various forms of technology, including the *Rock* CD-ROM and the Luck Stone website at www.luckstonerock.com should also be built into the plan for instructional delivery.

The Luck Stone Rock is intended to be a high-quality instructional resource for helping students gain knowledge and skills about the Earth. It is important to understand that the *Rock* can represent a significant part of the instructional program; however, Luck Stone fully recognizes it is the individual teacher's thoughtful and creative organization of instruction that makes learning come alive.

COMPANION CD-ROM

(It is highly recommended that teachers review the materials on the enclosed CD-ROM)

The *RockVA CD-ROM* accompanying *The Luck Stone Rock* Kit has not been updated in the new 2007 release. The original release of *The Luck Stone Rock* had one set of 22 samples compared with two sets of 12 samples in the 2007 release. The samples in the 2007 release are from different locations and do not look the same as the samples used in the original 2000 kit.

The companion CD-ROM is intended to support both individual student learning about Virginia rocks and provide the teacher with important information for classroom use. The teacher can weave many images on the CD into the instructional program. Video clips and graphics help explain important technical terminology and provide insight into both geology and the role of rock as a natural resource.

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Please review the section on **“Maximizing the Benefit”**. This review provides more detailed information on the content of the *RockVA CD-ROM* as well as various screen prints to assist the teacher in the location of specific resources as well as aids in maneuvering through the content.

The following content is only available on the **RockVA CD-ROM** and is not part of the Activities or Lesson Plans found within the three-ring binder:

- Mineral Identification (luster, cleavage, hardness, streak)
- Rock Identification (Sedimentary, Metamorphic, Igneous)
- Geological Concepts (weathering, plate tectonics, Rock types, details)
- Virginia Geology (the five geological regions of VA)
- Life in the Rocks (fossils)